

## **System and Method for Fabricating Three-Dimensional Objects Using Solid Free-form Fabrication**

### **ABSTRACT**

A method for solid free-form fabrication of a three-dimensional object includes depositing a particulate blend in a defined region, the particulate blend including a calcium phosphate source, a reaction retardant, and a layered double hydroxide, and selectively ink-jetting a solubilizing binder onto a predetermined volume of the particulate blend to form a pre-ceramic object in the predetermined volume, wherein the solubilizing binder includes wetting agents, humectants, pH modifiers, and surfactants.